

STATE OF COLORADO

Bill Ritter, Jr., Governor
James B. Martin, Executive Director

Dedicated to protecting and improving the health and environment of the people of Colorado

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Colorado Department
of Public Health
and Environment

December 24, 2008

PWSID# CO-02305417

Mountain Phoenix Community School
Attention: Michelle Brandstetter, Registered Agent
11398 Ranch Elsie Road
PO Box 7310
Golden, CO 80403

Certified Mail Number: 7005 1820 0000 3209 5705

Jefferson County School District R-1
1829 Denver West Drive #27
Golden, CO 80401

Certified Mail Number: 7007 0220 0001 0156 9080

RE: Service of Drinking Water Enforcement Order, Number: DN-081224-1

Dear Sir or Madam:

Mountain Phoenix Community School and Jefferson County School District R-1 are hereby issued the enclosed Enforcement Order (the "Order"). This Order is issued by the Colorado Department of Public Health and Environment, Water Quality Control Division (the "Department") pursuant to the authority given to the Department by §25-1.5-203 of the Colorado Revised Statutes ("C.R.S."). The Department bases this Order upon findings that Mountain Phoenix Community School and Jefferson County School District R-1 violated the *Colorado Primary Drinking Water Regulations* (the "Regulations") as described in the enclosed Order.

As a recipient of an enforcement order Mountain Phoenix Community School and Jefferson County School District R-1 may request a formal hearing to contest the Order in accordance with the Regulations, 5 CCR 1003-1, §1.6.7(g). Requests for such a hearing must be filed in writing with the Department within thirty (30) calendar days after service of the Order. Hearings on enforcement orders shall be held in accordance with applicable provisions of the State Administrative Procedure Act, §§24-4-101 through 24-4-108, C.R.S.

This action could result in the imposition of administrative or civil penalties. The Department or a State District Court is authorized pursuant to §25-1-114.1, C.R.S. to impose a penalty of up to \$1,000 per violation per day. Please be advised that the Department is continuing its

investigation into this matter and the Department may identify supplementary violations that warrant amendments to this Order or the issuance of additional enforcement actions.

Should Mountain Phoenix Community School and Jefferson County School District R-1 desire to informally discuss this matter with the Department or if Mountain Phoenix Community School and Jefferson County School District R-1 has any questions regarding the Order, please don't hesitate to contact Scott Klarich at (303) 692-3564 or by electronic mail at scott.klarich@state.co.us.

Sincerely,



Kristi-Raye Beaudin, Legal Assistant
Compliance Assurance and Data Management Section
WATER QUALITY CONTROL DIVISION

Enclosure

cc: Jefferson County Health Department
Compliance Monitor / Drinking Water File

ec: Tom Armitage, Engineering Section, CDPHE
Dick Parachini, Watershed Program, CDPHE
Betsy Beaver, Facility Operators Program, CDPHE
Shawn McCaffrey, EPA Region VIII
Jeff Lawrence, Director Consumer Protection Division, CDPHE
Carolyn Schachterle, OPA



COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT
WATER QUALITY CONTROL DIVISION

ENFORCEMENT ORDER

NUMBER: DN-081224-1

**IN THE MATTER OF: MOUNTAIN PHOENIX COMMUNITY SCHOOL AND
JEFFERSON COUNTY SCHOOL DISTRICT R-1
PUBLIC WATER SYSTEM IDENTIFICATION NUMBER: CO-0230517
JEFFERSON COUNTY, COLORADO**

Pursuant to the authority vested in the Colorado Department of Public Health and Environment (the "Department") by §25-1-109 and §25-1.5-203 of the Colorado Revised Statutes ("C.R.S."), which authority has been delegated to the Department's Water Quality Control Division (the "Division"), the Division hereby makes the following findings and issues the following Enforcement Order:

GENERAL FINDINGS

1. Mountain Phoenix Community School ("Mountain Phoenix") and Jefferson County School District R-1 ("Jeffco R-1") own and/or operate a drinking water system, located at 11398 Ranch Elsie Rd., in Coal Creek Canyon, Jefferson County, Colorado (the "System").
2. Mountain Phoenix and Jeffco R-1 are each a person(s) as defined by 5 CCR 1003-1, §1.5.2(98).
3. Mountain Phoenix and Jeffco R-1 are each a supplier of water within the meaning of §25-1.5-201(2), C.R.S. and its implementing regulation, 5 CCR 1003-1, §1.5.2(128).
4. The System is a public water system as defined by §25-1.5-201(1), C.R.S. and its implementing regulation, 5 CCR 1003-1, §1.5.2(107).
5. The Public Water System Identification Number ("PWSID"), assigned to the System by the Division is PWSID #: CO-0230517.
6. Pursuant to 5 CCR 1003-1, §1.2, the System is subject to the *Colorado Primary Drinking Water Regulations* (the "Regulations"), which were adopted pursuant to §25-1.5-203, C.R.S.
7. Mountain Phoenix and Jeffco R-1 provide piped water for human consumption from the System to at least twenty-five (25) of the same persons over six (6) months per year. The System is therefore classified as a "non-transient, non-community water system" as defined by 5 CCR 1003-1, §1.5.2(94).

8. The System's source of water is groundwater as defined by 5 CCR 1003-1, §1.5.2(63).
9. On September 17, 2007, the Division issued a Bottled Water Order to the System as a measure to protect public health as a result of the following set of circumstances: (1) lack of Division approval of the drinking water distribution system, and (2) unknown conditions of the water quality.

First Violation

(Failure to Comply with the Maximum Contaminant Level for Nitrate)

10. Pursuant to 5 CCR 1003-1, §§2.2 and 6.1.1(a)(2), all public water systems are subject to the Nitrate maximum contaminant level of 10 mg/L (as nitrogen).
11. Pursuant to 5 CCR 1003-1, §6.1.3(a)(3), compliance with the maximum contaminant level for Nitrate is determined based on one sample if the level of this contaminant is below the maximum contaminant level. If the level of Nitrate exceeds the maximum contaminant level in the initial sample, a confirmation sample is required in accordance with 5 CCR 1003-1, §6.1.5(g)(2), and compliance shall be determined based on the average of the initial and confirmation samples.
12. Pursuant to 5 CCR 1003-1, §6.1.5(a) and (e), non-transient, non-community water systems shall conduct monitoring to determine compliance with the maximum contaminant levels specified in 5 CCR 1003-1, Article 2, Table 2-3.
13. Pursuant to 5 CCR 1003-1, §6.1.5(e)(1), non-transient, non-community groundwater systems shall monitor annually for Nitrate.
14. Pursuant to 5 CCR 1003-1, §6.1.5(b)(1), the System is required to collect a minimum of one Nitrate sample at every entry point to the distribution system which is representative of each groundwater source after treatment.
15. Pursuant to 5 CCR 1003-1, §6.1.5(e)(2), systems shall perform quarterly Nitrate monitoring for at least one year following any one sample in which the concentration is greater than or equal to (\geq) 50 percent of the maximum contaminate level (10 mg/L). The Department may allow a groundwater system to reduce the sampling frequency to annually after four consecutive quarterly samples are reliably and consistently less than the maximum contaminate level.
16. Under 5 CCR 1003-1, §6.1.5(g)(2), when Nitrate sampling results indicate an exceedance of the maximum contaminant level, the System must take a confirmation sample within 24 hours of the System's receipt of notification of the analytical results of the first sample. Systems unable to comply with the 24-hour sampling requirement must immediately notify persons served by the public water system in accordance with §9.2 and meet other Tier 1 public notification requirements under Article 9. Systems exercising this option must take and analyze a confirmation sample within two weeks of notification of the analytical results of the first sample.

17. Pursuant to 5 CCR 1003-1, §§1.6.4(a) and 6.1.2, the System is required to report to the Department the results of the System's Nitrate analyses within (1) the first ten calendar days following the month in which a result is received, or (2) the first ten calendar days following the end of the required monitoring period, as stipulated by Department, whichever of these is shorter.
18. Department records establish that the System has reported the following Nitrate monitoring data to the Department:

Sample Point (Monitoring Point 001)	Nitrate Sampling Results in mg/L (as nitrogen)
12/04/2007	8.63
01/08/2008	8.56
06/10/2008	11.51
07/08/2008	10.90

19. Division records establish that the System did not perform confirmation sampling as required by 5 CCR 1003-1, §6.1.5(g)(2). Therefore, the Division has determined that the provided Nitrate sample results, supported by subsequent sampling results, demonstrate an ongoing exceedance of the 10 mg/L (as nitrogen) Nitrate maximum contaminant level.
20. On August 15, 2008, the System sent a letter to the Division outlining a compliance proposal that requested application of the alternate Nitrate maximum contaminate level specified in 5 CCR 1003-1, §6.1.1(c)(1) in conjunction with the use of two reverse osmosis point-of-use devices.
21. On September 2, 2008, the Division responded to the System and advised that the compliance proposal presented in the August 15, 2008 submittal was rejected as insufficient information was provided regarding the cause or source of the Nitrate in the System's groundwater source.
22. Division records to-date establish that the System has not demonstrated reliable and consistent compliance with the Nitrate maximum contaminant level, nor has the System implemented any Division approved improvements to comply with the Nitrate maximum contaminant level.
23. Mountain Phoenix and Jeffco R-1's failure to perform the required confirmation sampling constitutes violation(s) of 5 CCR 1003-1, §6.1.5(g)(2).
24. Mountain Phoenix and Jeffco R-1's failure to maintain compliance with the Nitrate maximum contaminant level constitutes violation(s) of 5 CCR 1003-1, §2.2.

Second Violation
(Failure to Provide Disinfection Treatment)

25. Pursuant to 5 CCR 1003-1, §7.9.1(b), a public water system that uses only groundwater sources which have been determined to not be under the direct influence of surface water shall be disinfected by means or methods which are approved by the Department and are affective in the killing or removal of pathogenic organisms. Disinfection may include physical as well as chemical treatment. When chlorination methods are employed, a sufficient amount of chlorine shall be added to the water to destroy any pathogenic organisms potentially present and to maintain a detectable residual in at least 95 percent of the samples taken at the extremities of the distribution system from which water may be withdrawn.
26. Pursuant to 5 CCR 1003-1, §7.9.1(d), the Department may waive the requirement for disinfection upon written application by a supplier. Waivers may be granted when competent evidence is submitted by the supplier to establish that the water being supplied to the public is from a protected groundwater source, determined safe and free from contamination. An application for a waiver shall include information regarding the source, distribution and quality of the system's water.
27. Division records establish that the System has not requested or received a disinfection waiver from the Department.
28. Division records to-date establish that the System has not installed Division approved disinfection treatment for the System's distributed water.
29. Mountain Phoenix and Jeffco R-1's failure to provide Division approved disinfection treatment and to maintain a detectable disinfectant residual in the System's distributed water constitutes an ongoing violation of 5 CCR 1003-1, §7.9.1(b).

COMPLIANCE ORDER

Based upon the foregoing factual and legal determinations and pursuant to 5 CCR 1003-1, §1.6.7, Mountain Phoenix and Jeffco R-1 are hereby ordered to:

30. Immediately comply with the *Colorado Primary Drinking Water Regulations*, 5 CCR 1003-1, Articles 1 through 13.

Further, the Division hereby orders Mountain Phoenix and Jeffco R-1 to comply with the following specific terms and conditions of this Order.

31. In order to ensure long-term compliance with the *Colorado Primary Drinking Water Regulations*, specifically including the groundwater disinfection treatment requirements (Article 7) and the Nitrate maximum contaminant level (Article 2 and 6) for public water supplies, Mountain Phoenix and Jeffco R-1 shall evaluate and upgrade, as needed, the System's water sources and/or treatment processes in accordance with the following schedule:

- a. By no later than January 15, 2009 retain a qualified individual or entity (experienced in drinking water systems) to evaluate and recommend water treatment technologies or alternate water sources to ensure compliance with the groundwater disinfection treatment requirements (Article 7) and the Nitrate maximum contaminant level (Article 2 and 6).
- b. By no later than March 18, 2009, jointly submit for Division review and comment a finalized Preliminary Engineering Report for system improvements to comply with the *Colorado Primary Drinking Water Regulations*, specifically including the groundwater disinfection treatment requirements (Article 7) and the Nitrate maximum contaminant level (Article 2 and 6). If an alternate water source (e.g. hauled water or a new groundwater well) is proposed, submit for Department review and comment a detailed description of the alternate water source along with a copy of the laboratory analyses (if applicable) supporting that the alternate water source is suitable.
 - i. The Preliminary Engineering Report submittal package must be developed consistent with the Colorado Drinking Water Preliminary Engineering Report Guidance & Review Checklist Form.
(see http://www.cdphe.state.co.us/wq/opa/pdf/19_CPERGuideChecklistDW.pdf)
 - ii. The Preliminary Engineering Report (if applicable) must clearly identify the specific treatment technology that Mountain Phoenix and Jeffco R-1 will use to ensure compliance with the *Colorado Primary Drinking Water Regulations*, specifically including the disinfection treatment requirements and the maximum contaminant level for Nitrate.
 - iii. The Preliminary Engineering Report (if applicable) must include a process flow schematic of the distribution system from wellheads to points of use, including flow rates, treatment facilities, storage tanks and all service connections supplied by the wells. Alternative treatment locations for the selected treatment process or processes must be evaluated with a recommended location selection. The process flow schematic information and evaluation must be included to ensure all water from the System is treated.
 - iv. The Preliminary Engineering Report (if applicable) must include a proposal for management of residuals from the treatment technology selected.
 - v. The Preliminary Engineering Report submittal package must include design calculations showing the proposed treatment system is properly sized and chlorine contact times can be met for expected flow rates.

{Please note that, prior to construction, the Department must give final approval to any modifications to the System's water source or treatment process. The Department will not perform a detailed review and final approval of any proposed modifications until the final design plans and specifications have been received pursuant to paragraph 31(d) below.}

- c. If it is determined that the existing groundwater source will be utilized with treatment, Mountain Phoenix and Jeffco R-1 shall jointly complete construction/implementation of the Division approved (December 23, 2008) disinfection treatment within thirty (30) calendar days of such determination.
- d. By no later than April 30, 2009, jointly submit Design Plans and Specifications for System improvements for Department review and approval in accordance with the *State of Colorado Design Criteria for Potable Water Systems*.
(see <http://www.cdphe.state.co.us/wq/drinkingwater/newsystems.html>)
- e. By no later than July 1, 2009, complete construction/implementation of the Department approved system improvements to ensure long-term compliance with the groundwater disinfection treatment requirements (Article 7) and the Nitrate maximum contaminant level (Article 2 and 6).
- f. By July 10, 2009, Mountain Phoenix and Jeffco R-1 shall jointly submit a written certification that the System improvements were constructed/installed as approved by the Department.

32. By no later than July 1, 2009 (following System improvements) and in order to ensure that Mountain Phoenix and Jeffco R-1 meets the technical, managerial and financial (TMF) capacity requirements of the *New Water System Capacity Planning Manual* as required by 5 CCR 1003-1, Article 1.11.2(a), Mountain Phoenix and Jeffco R-1 shall review and update its capacity assessment in accordance with the information outlined in the *New Water System Capacity Planning Manual*. By no later than July 10, 2009, Mountain Phoenix and Jeffco R-1 shall jointly submit to a copy of its updated capacity assessment to the Division.

A copy of the manual can be viewed at the following internet location:
<http://www.cdphe.state.co.us/wq/drinkingwater/pdf/CapacityDevelopment/newsystmanual.pdf>

33. By no later than July 1, 2009 and in accordance with 5 CCR 1003-1, §1.12.3, Mountain Phoenix and Jeffco R-1 shall review and revise its monitoring plan, including its microbiological contaminant sampling-siting plan, to reflect the System's current configuration, treatment and operation (following System improvements). The plan shall specifically outline how Mountain Phoenix and Jeffco R-1 will ensure that samples collected are representative of water quality throughout the distribution system(s), that samples should be taken both with temporal and spatial separation to ensure representative samples are obtained of water quality throughout the distribution system and throughout the month of service and that samples are not to be taken all on the same day. By no later than July 10, 2009, Mountain Phoenix and Jeffco R-1 shall jointly provide the Division with a copy of its revised and updated written monitoring plan.
34. Following System improvements and by no later than July 1, 2009, Mountain Phoenix and Jeffco R-1 shall jointly provide a written description of how the System's Cross-Connection Control Program (5 CCR 1003-1, Article 12) is being implemented.

A Sample Cross-Connection Control Program for Small Systems guidance document can be viewed at the following internet location:

35. By no later than July 1, 2009, Mountain Phoenix and Jeffco R-1 shall develop an Operations and Maintenance Manual that outlines the practices to be followed for proper operation and maintenance of the System. At a minimum, the Operations and Maintenance Manual shall include the following:
- a. A written description of the personnel requirements and qualifications for the operation and management of the System, including a description of each individual's role, duties and responsibility in ensuring the proper operation and maintenance of the System.
 - b. A copy of the System's records retention policy and/or procedures, which should specifically reference the following types of records; maintenance records, equipment inventory records, daily operation logs and both process and regulatory monitoring (sampling/analysis) records.
 - c. A description of the water source, including raw water characteristics, and a description of the intake facilities for the System.
 - d. A detailed description of the treatment processes utilized by the System, including, but not limited to, a description of each treatment process (filtration, disinfection, ...etc.), operations, controls and process flow schematics and as built design drawings.
 - e. A detailed description of the storage capabilities of the System, including as built design drawings.
 - f. A detailed description of the distribution system, including process flow schematics, materials of construction, identification of pumps, major valves, sampling ports and any booster stations.
 - g. A detailed description of the utility systems supporting the System, including backup systems.
 - h. For each element of the manual that describes equipment, the manual should include copies of equipment operation manuals, user guides, maintenance/trouble shooting procedures and list of onsite replacement parts and the part storage location.
 - i. A detailed description of the System's process testing and sampling/analysis procedures. (5 CCR 1003-1, Article 10)
 - j. A copy of the System's developed and implemented monitoring plan, specifically including a written microbiological contaminants sample-siting plan. (5 CCR 1003-1, §1.12)
 - k. A written description of the System's cross-connection control program. (5 CCR 1003-1, Article 12)

1. System upset or emergency operation procedures, which include the following:
 - i. An outline of the roles and responsibilities of System operators during emergency operations, including specifically the role/responsibility of the System's certified Operator in Responsible Charge.
 - ii. Criteria for implementing emergency operations.
 - iii. Internal and external notification procedures, including notification of the System's certified Operator in Responsible Charge, notification to the Division and notification to users of the System's distributed water (Consumer Notification / 5 CCR 1003-1, Article 9).
 - m. Operator health and safety information and procedures.
36. By no later than July 10, 2009, Mountain Phoenix and Jeffco R-1 shall jointly submit to the Division a written certification stating that the Operations and Maintenance Manual developed under paragraph 35 above has been completed.
 37. Mountain Phoenix and Jeffco R-1 shall jointly submit "System Improvement Project - Progress Reports" to the Division every sixty (60) calendar days. The first report shall be submitted to the Division by no later than January 15, 2009. At a minimum, each report shall clearly indicate the status of the system evaluation/improvement project at the time the report is filed and outline activities to be undertaken within the next sixty (60) calendar days to comply with this enforcement order.
 38. Consistent with the terms of the September 17, 2007 Bottled Water Order, Mountain Phoenix and Jeffco R-1 shall provide a continuous posting of its public notice (bottled water advisory) and submit to the Division its Certification of Delivery form every two (2) weeks in accordance with 5 CCR 1003-1, §9.2 until the Division has acknowledged in writing that the System is consistently distributing safe water and lifted the Bottled Water Order.

NOTICES AND SUBMITTALS

For all documents, plans, records, reports and replies required to be submitted by this order, Mountain Phoenix and/or Jeffco R-1 shall submit an original and one copy (electronic is preferred) to the Division at the following address:

Colorado Department of Public Health and Environment
Water Quality Control Division / WQCD-WQP-B2
Compliance Assurance and Data Management Section
Attention: Scott Klarich
4300 Cherry Creek Drive South
Denver, Colorado 80246-1530
Email: scott.klarich@state.co.us
Fax: (303) 782-0390

(For any facsimile transmittals, please include a cover sheet addressed to Mr. Klarich.)

Pursuant to 5 CCR 1003-1, §1.6.4(e), all reports, notices, summaries, and certifications required to be submitted to the Department by the public water system must bear the original signature of the owner or the owner's authorized representative.

NOTICE OF COMPLETION

Mountain Phoenix and Jeffco R-1 shall jointly submit a Notice of Completion to the Division upon satisfactory completion of all requirements of this Enforcement Order. The Division shall either accept or reject the Notice of Completion in writing. If the Division rejects the Notice of Completion, it shall include in its notice a statement identifying the requirements that the Division considers incomplete or not satisfactorily performed and a schedule for completion. If Mountain Phoenix and/or Jeffco R-1 wish to dispute the Division's rejection of its Notice of Completion, it shall, within fifteen (15) calendar days of receipt of the Division's rejection, submit a written statement as to its belief of full compliance, addressing in detail all concerns the Division raised in the rejection letter to the System's Notice of Completion.

PRIOR APPROVAL REQUIRED

Pursuant to 5 CCR 1003-1, §1.11.2, no person shall commence construction of any new waterworks, or make improvements to or modify the treatment process of an existing waterworks, or initiate use of a new source, until plans and specifications for such construction, improvements, modifications or use have been submitted to, and approved by the Department. The Department shall grant such approval when it finds that the proposed facilities are capable of complying, on a continuous basis, with all applicable laws, standards, rules and regulations.

POTENTIAL ADMINISTRATIVE/CIVIL AND CRIMINAL PENALTIES

You are also advised, pursuant to §25-1-114.1, C.R.S., that violators of the Regulations or final Enforcement Orders issued by the Department are subject to civil or administrative penalties of up to one thousand dollars (\$1,000) per violation per day, to be imposed by the Department or a State District Court. Further, pursuant to §25-1-114(4), C.R.S., any person, association, or corporation, or the officers thereof, who violates, disobeys, or disregards any provision of the Regulations or an Enforcement Order is guilty of a misdemeanor and, upon

conviction thereof, shall be punished by a fine of not more than one thousand dollars (\$1,000), or by imprisonment in the county jail for not more than one (1) year, or by both such fine and imprisonment and, in addition to such fine and imprisonment, shall be liable for any expense incurred by health authorities in removing any nuisance, source of filth, or cause of sickness. By virtue of issuing this Enforcement Order, the Department has not waived its right to bring an action for administrative, civil or criminal penalties and may bring such action in the future.

REQUEST FOR HEARING OR APPEAL

You are further advised, pursuant to 5 CCR 1003-1, §1.6.7(g), that a recipient of an Enforcement Order may request a hearing contesting such order. Requests for such a hearing shall be filed in writing with the Department within thirty (30) calendar days after service of the order. Such requests shall state the grounds upon which the order is contested and state the amount of time the recipient estimates will be required for the hearing. Hearings on Enforcement Orders shall be held in accordance with applicable provisions of the State Administrative Procedure Act, Article 4 of Title 24, C.R.S.


ADDITIONAL ACTION

You are further advised that under §25-1-114.1(1), C.R.S., the Department may institute a civil action against any person who violates a final Enforcement Order of the Department issued for violation of any minimum general sanitary standard or regulation adopted pursuant to §25-1.5-203, C.R.S.

Additionally, the Department may request the Attorney General to seek a temporary restraining order or permanent injunction to prevent or abate any violation of a minimum general sanitary standard or regulation adopted pursuant to §25-1.5-203, C.R.S. Further information concerning the aforementioned action is contained in §25-1-114.1(3), C.R.S.

Issued at Denver, Colorado, this 24th day of December, 2008.

FOR THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT


Lori M. Gerzina, Section Manager
Compliance Assurance and Data Management Section
Water Quality Control Division